

Appl. No. 10/525,359
Response dated July 13, 2006
Reply to Notice of Non-Compliant Amendment Dated 06/16/2006

Docket No. 3926.136

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-17. (cancelled)

18. (new) A catalyst body with one or more layer elements with cavities which are etched and through which streamable media can flow, such as pores or channels, wherein the cavities are basically perpendicular to the surface.

19. (new) The catalyst body according to claim 18, wherein the layer elements consist basically of silicon or silicon compound alloy.

20. (new) The catalyst body according to claim 18, wherein the dimensions of the cavities perpendicular to the flow direction of the medium vary.

21. (new) The catalyst body according to claim 18, wherein the surface of the cavities has a metallic coating.

22. (new) The catalyst body according to claim 18, wherein the inner surface of the cavities possesses a catalytic active coating.

23. (new) The catalyst body according to claim 18, wherein at least two of the layer elements have alignment marks.

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24. (new) The catalyst body according to claim 18, wherein the layer elements basically consist of electrically conducting material.
25. (new) A method of fabrication of a catalyst body constructed from single layer elements with the following procedure steps:
- etching of complete pores running through the substrate which basically run perpendicular to the layer surface
 - stacking of equally processed and etched elements on top of each other.
26. (new) The method of fabrication according to claim 25, wherein the etching is performed by deep anodic or photo anodic etching.
27. (new) The method of fabrication according to claim 25, wherein the etching is performed by a plasma etching process.
28. (new) The method of fabrication according to claim 25, wherein additional alignment marks are foreseen on each of the layer elements.
29. (new) The method of fabrication according to claim 25, wherein at least one surface is pre-structured by a photolithographic process.
30. (new) The method of fabrication according to claim 25, wherein the surfaces of the etched cavities are coated by a metallic layer.
31. (new) The method of fabrication according to claim 25, wherein the surfaces of the etched cavities are supplied with a catalytic active layer.
32. (new) A catalytic reactor with a housing including feed and output gas lines for the reactants and a catalyst body inside, wherein the catalytic reactor has a catalyst body with one or

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more layer elements with cavities which are etched and through which streamable media can flow, such as pores or channels wherein the cavities are basically perpendicular to the surface.

33. (new) The catalytic reactor according to claim 32, wherein the catalytic reactor is divided into several segments each segment consisting of the said catalyst body.

34. (new) A fuel cell system with a catalytic reactor as a reformer and a fuel cell, wherein a fuel cell has a catalytic reactor with a housing including feed and output gas lines for the reactants and a catalyst body inside thereby defined that it has a catalyst body with one or more layer elements with cavities which are etched and through which streamable media can flow, such as pores or channels wherein the cavities are basically perpendicular to the surface.